PREPAREDNESS PREVENTION AND CONTINGENCY PLAN (PPC)

WASHINGTON COUNTY

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APPENDICES

1.0 EXECUTIVE SUMMARY

This Preparedness Prevention and Contingency (PPC) Plan is prepared for Range Resource Corporation's operations in Washington County, Pennsylvania. The sites are identified in the permit application which will be located in Washington County. This PPC Plan was developed in accordance with PA DEP Guidelines #400-2200-001/September 2001, *Guidelines for the Development and Implementation of Environmental Emergency Response Plans.*

This PPC Plan is an integral part of the operation's environmental, health and safety program. It is designed to provide for foreseeable workplace occurrences and provide the response framework for those occurrences, which have the potential for employee injury or environmental damage. It contains program elements designed for prevention/control of accidental discharges of regulated substances. Further, the plan is designed to be flexible, with established guidelines, and will be reviewed on a regular basis to assure the plan is a current, viable, and useful tool.

Mr. Ralph Tijerina is the administrator of this PPC Plan and is responsible for implementation and maintenance. Reviews and revisions of this plan will be completed annually unless plan failure, operational changes, or regulatory revisions necessitate otherwise. Any questions, comments, or suggestions regarding this PPC Plan should be directed to Mr. Ralph Tijerina

Authorized for Implementation:

Ralph Tijerina

_____ _____

Environmental Health and Safety Manager Date Implemented

2.0 PLAN REVIEW RECORD

The following table is a record of the periodic revisions made to this plan since the original date of plan implementation. It is required by the PADEP that the plan be reviewed annually. This plan will also be reviewed and revised if any of the following occur:

- An applicable regulation is revised;
- The plan fails in an emergency;
- There is a change in the design, construction, operation, or maintenance that materially affects the operation's potential for discharge;
- The list of emergency coordinators changes;
- The list of emergency response equipment changes; or
- As otherwise directed by an applicable agency.

Date	Revision	Signature	Comments
1-1-2009	1A		Update

3.0 DESCRIPTION OF SITES

3.1 Description of the Industrial or Commercial Activity

Activity to be conducted at these sites will include but not be limited to the construction of road to the well-site and the pad on which the drilling operation will be conducted, drilling of the borehole following the casing design and strategic analysis described in the Drilling Permit Application, Completing and Fracing of the well, Flowback operations and Production. The operation will be at various locations as described in the permit application within Washington County. All coordinates for each borehole are stipulated in the Drilling Permit Application accompanied by this PPC plan.

- The average constituents of the NGL are propane (18.28%), butane (24.59%), iso-butane (7.32%), and pentane and longer chain hydrocarbons (49.81%).
- The operation's North American Industry Classification Systems (NAICS) code is 211111 (Crude Petroleum and Natural Gas Extraction).

3.2 Description of Existing Emergency Response Plans

This plan is compatible with existing emergency response and spill prevention plans. The operations and subcontractors maintain a Spill Prevention Control and Countermeasure (SPCC) Plan compliant with 40 Code of Federal Regulations Part 112.

3.2.1 Assessments of Impacts on Downstream Water Supplies or Water Wells in Area

As part of the plan to ensure that no impacts occur to either downstream water supplies or water wells, an assessment of all water sources within a 1000 ft radius of the well site will be conducted by identified and samples will be taken to establish a baseline prior to any activity.

The samples will be collected and tested by a state certified water-testing laboratory in order to assure an independent objective assessment. These test results will be maintained in the well file should reference be required in the future. During the testing process, RRC will ensure that adequate water supplies are provided to those utilizing the water well in question.

Best Management Practices (BMPs) will be in place to prevent the contamination of any water supply either downstream or an identified water well. Preliminary water sampling will be conducting in accordance to established requirements.

Well Control Guideline plans include the use of equipment to contain any large amounts of water which may be required to contain or control any fires should the need exist.

During the drilling and completion process, all returned fluids will be contained in a lined reserve pit or 500 bbl frac tanks to prevent any run-off that could cause contamination to existing water wells or streams.

3.3 Materials and Waste Inventory

3.3.1 Liquid Storage Description

- 5 gal pails
- 55 gal drums
- 500 gal intermediate bulk containers
- 20,000 gal max diesel storage

3.3.2 Dry Bulk Storage Description

- 50 lb sack chemicals
- 55 lb sack chemicals
- 100 lb sack chemicals
- 1 ton bulk bag

The following products are used for the operations described above but are subject to change based on the circumstances encountered during the development of the project. The MSDS for each product are required to be on site while any chemical is staged on location.

MC M-8650

MC MX 525-5

MCSS 5359

MC MX S-2510T

B-8650

S-2510T

K 34

HCL Acid Plus Inhibitor and Surfactant

BC 140

Delta Frac 140FE-1A Acidizing Composition

FR-46

HAI-OS Acid Inhibitor

Hydrochloric Acid 5-10%

X-TEND II

Sodium Chloride

Potassium Chloride

Ultrahib

Ultracap

Polypac UL/ELV

DUO-Vis/ XCD Polymer

Ultrafree

M-I Bar

Aldacide G Antimicrobial

Bara-Defoam 1

Barazan D Plus

Bariod

Bicarbonate of Soda

Bore-Hib

Bore-Plus

Bore-Vis

Bore-Vis II

Calcium Hypochlorite – Hydrated

Caustic Soda

Citric Acid

Clay Grabber

Clayseal Plus

Dextrid LT

Pac L

Polyac Plus

Diesel Oil

CI-14

Ferrotrol 300L

XLW-32

GW-3LDF

GBW-20C

BF-7L

GBW-15L

FRW-14

FRW-25

Alpha-125

Methanol

40 HTL

NE 100

FE 100L

HVG-04

HVG-01

B9

BXL-2

ICI-3240

ICI-150

FRW-50

FRW-25

Iron Check

Unilink

GBL-8X

Unigel 19XL

FRP-21

Bioclear 200

AI-2

IC-100L

OB-Fe

Super OW-3

Super Pen 2000

Super 100NE

Bioclear 200

SAS-2

***3.3.3* Waste**

Waste accumulated on site will be collected accordingly and disposed of in various manners dependent upon the classification. Waste will be minimized by the utilization of larger packaging containers. Where possible, intermediate bulk containers will be used as they can be reutilized instead of using drums thus resulting in minimal waste products.

Municipal Waste

Containerization via Waste Management

Produced/ Frac/ Pit Water

Produced water will be collected by use of vacuum trucks and disposed of accordingly to the proper sites. The following information contains the names of the various companies that will transport the produced water to sites identified in Section 6.6.

R.T.I.

Highland Environmental Sanitation

MJ Water Co, Inc

Woods Trucking

Ted Stutzman

Devonian Industries, Inc

Burkholtz Welding

Stallion Oilfield Services

Force

3.4 Pollution Incident History

There is no history pertaining to any pollution for these areas in which the drilling permit is being requested as these are not part of any current operations in which Range Resources is conducting business. Completed records of future occurrences with spill reporting and response will be included in Appendix C.

Should a spill occur, the following information will be recorded and maintained for five years:

1. Date and time of incident;
2. Location of incident;

3. Name of individual discovering the incident;
4. Product released and amount released;
5. Causes of the spill, including failure analysis;
6. Corrective actions and/or countermeasures taken and additional preventative measures taken or contemplated.

3.5 Implementation Schedule for Elements Not Currently In Place

As of the signature dates on page 1 of this plan, all elements of this plan are currently in place.

4.0 DESCRIPTION OF HOW PLAN IS IMPLEMENTED BY ORGANIZATION

4.1 Organizational Structure of Facility for Implementation (Pollution Prevention Team)

The operational headcount on site will be no more than 30 personnel at any given time which includes both Range Resources Corp and its subcontractors. The primary emergency coordinator's duties and responsibilities will be as follows:

1. Risk management and inventory of materials,
2. Establishment of all spill-reporting duties,
3. Implementation of visual inspection procedures,
4. Review of past incidents and actions taken,
5. Implementation of plan goals,
6. Coordinate all spill clean-up activities,
7. Notification of all necessary authorities,
8. Education and training of all on-site personnel,
9. Evaluation of plan and change as needed,
10. Review any changes relative to the current plan,
11. Evaluate overall effectiveness of plan, and
12. Review and update the plan on a regular basis and make changes as necessary.

Changes made to the plan affecting the personnel will be communicated at the earliest available time, generally during safety meetings and put into practice as part of standard operating procedures, where necessary. Where mentoring or extended training is required for the individuals to gain experience, a mentoring system will be put in place and On-The-Job training will be documented.

4.2 List of Emergency Coordinators

The following table shows a list of the Emergency Coordinators for Range Resources Appalachia, LLC, Washington County.

All calls to report an emergency or contact one of the Emergency Coordinators should to:

(866) 768-4756

Emergency Coordinators

Name	Title
Mr. Ralph Tijerina	Director - Health, Safety and Environmental
Mr. John Applegath	Vice President – Drilling
Mr. Matt Curry	Completions Manager
Mr. Steve Rupert	Vice President - Production

In the event the Primary Emergency Coordinator is not present at the time of an emergency, the designated alternate individuals will accept those responsibilities.

In the rare event none of the above personnel are present; the ranking supervisor on-site will be in charge of the facility until the appropriate personnel can be contacted. All supervisory personnel who may be in charge of the facility will be trained in the proper response procedures in the event of an emergency.

Emergency phone numbers along with site lat/long coordinates will be clearly posted on-site.

4.3 Duties and Responsibilities of Emergency Coordinators

The Emergency Coordinator is responsible for the review of existing materials, storage of materials and the necessary recommendations/upgrades to update the PPC Plan, if appropriate.

If the Emergency Coordinator determines that the site has had an emission, discharge, fire, or explosion, which would threaten human health or the environment, the Emergency Coordinator must immediately notify:

- Southwest Region of the Pennsylvania Department of Environmental Protection (412-442-4000);
- North Region of the Pennsylvania Department of Environmental Protection (814-332-6945)
- National Response Center (800-424-8802); and the
- Pennsylvania Emergency Management Agency (717-651-2001); and report the following:
    - Name of person reporting incident,
    - Name and location of the facility,
    - Phone number where the person reporting the spill can be reached,
    - Date, time, and location of the incident,
    - A brief description of the incident, nature of the materials involved, extent of injuries, and potential effects on health or the environment,
    - Estimated quantities of the materials involved, and
    - The extent of contamination of land, water, or air, if known.

During an emergency, the Emergency Coordinator must take all reasonable measures necessary to ensure that fire, explosion, emission, or discharge do not occur, reoccur, or spread to other materials or wastes at the site. These measures shall include, where applicable, stopping operations, collecting, and containing released materials or wastes, and removing or isolating containers.

If the facility ceases operations in response to a fire, explosion, emission, or discharge, the Emergency Coordinator must ensure that adequate monitoring is conducted for leaks, pressure buildup, or ruptures in valves, pipes, or other equipment, wherever it is appropriate.

4.3.1 Duties after an Emergency

Immediately after an emergency, the Emergency Coordinator, with Pennsylvania Department of Environmental Protection (PA DEP) approval, must provide for treating, storing, or disposing of residues, contaminated soil, etc., from an emission, discharge, fire, or explosion at the site.

The Emergency Coordinator must ensure that in the affected areas of the site, no material or waste incompatible with the emitted or discharged residues is processed stored, treated, or disposed of until cleanup procedures are completed; and, all emergency equipment listed in the plan is cleaned and fit for its intended use before operations are resumed.

Within fifteen (15) days of the incident, the facility will submit a written report on the incident to the PA DEP.

4.4 Company Officials

The Emergency Coordinator will notify the following company officials, if appropriate:

Range Resources – Company Officials

Name	Title	Telephone Number
Mr. John Applegath	Vice President - Drilling	(724) 678-7054
Mr. Matt Curry	Completions Manager	(724) 678-8051
Mr. Steve Rupert	Vice President - Production	(330) 280-1030
Mr. Ray Walker	Vice President – Shale Appalachia	(724) 822-0916

5.0 SPILL OR LEAK PREVENTION AND RESPONSE

5.1 Pre-Release Planning

The sources for potential spills/leaks for these sites are from aboveground storage tanks, impoundment ponds, drum and intermediate storage containers which are summarized in Table 5.1.

The properties where most sites reside are situated on gentle slopes though all efforts will be to remain on level property. Where the landscape is sloped, the natural flow would be in any given location. Pre-planning addresses the potential hazards and ensures that measures will be taken to minimize any exposures which may occur. Therefore, most small spills would not travel far over the porous gravel ground surface.

GENERAL DECRIPTION OF LOCATION

The location of each well site is defined in the Drilling Permit Application and depicted in the adjoining topography map. However, each road and site pad will be constructed in a manner which minimizes the disturbance of land and will follow E&S Best Management Practices. The traveled areas will maintain a top layer of rock to stabilize the property.

Any impoundments will be designed in a manner to maintain an interior slope of 3.5:1; exterior slopes of 2:1; bottom slopes of 1% and a berm width of 15 ft. An attached example is attached as Appendix C

5.2 Pollution Incident Prevention Practices

5.2.1 Fail Safe Engineering

There are many safeguards instilled into the operation to prevent the accidental discharge of material. Many of the storage tanks are equipped with means to gauge the volume. Secondary containment according to the contractor's SPCC will be enacted to ensure that any spills are contained. See Section 5.2.3 The BOPs will be operable during activities involved in the drilling and completion of the well to prevent blowouts should excess back pressure be experienced.

5.2.2 Preventive Maintenance

Preventative maintenance involves the regular inspection and testing of the equipment and operational systems. A preventative maintenance program emphasizes the upkeep and maintenance of systems, which could, upon breakdown or failure, result in conditions that could cause environmental degradation or endangerment of public health and safety. If any deficiencies and/or leaks are discovered during the following preventative maintenance activities, the deficiencies are promptly corrected and any spilled material is immediately cleaned up. Site Inspection Checklist Forms are included in Appendix B.

- **Visual Observations** - The site is manned 24 hours a day and visual inspections will be conducted throughout.
- **Detailed Inspections and Monitoring**– See Section 5.4, Inspection and Monitoring Program for a list of detailed inspections.

5.2.3 Discharge and Drainage Control

- **Secondary Containment**

- Two to three above ground storage tanks with volumes of 210 bbls (8820gal) each will utilize secondary containment as defined in the SPCC
- Frac tanks will vary in volume according to the requirements of the project. Those containing any hazardous materials will be diked accordingly to minimize run off.

- **Vapor Control**
  - Provided by pressure relief valves/fittings as appropriate.

- **Dust Control** (Not applicable at this operation)

5.2.4 Mitigation

Personnel are provided with proper protective clothing and eyewear. Cleanup will be performed with brooms, shovels, and absorbent materials for small spills, and outside contractor services for large spills.

5.2.5 Ultimate Disposition of Contaminated Materials

All contaminated soils, sorbents, and waters are disposed of through properly permitted subcontractors.

5.3 Material Compatibility

Materials held in inventory are stored properly to ensure material compatibility. Incompatible materials should be recognized and individuals working at the facility should be properly informed through signage, training, etc.

An inventory of the materials stored at the facility was taken and the corresponding Material Safety Data Sheets were collected. The chemicals comprising the Engine oil, Hydraulic fluid, Methanol Inhibitor, and Antifreeze were entered into a chemical reactivity prediction program. The Chemical Reactivity Worksheet Version 1.9, developed by the CAMEO (Computer Aided Management of Emergency Operations) Team at the Hazardous Materials Research Branch of the Office of Response and Restoration at the National Oceanographic and Atmospheric

Administration (NOAA) and the Chemical Emergency Prevention and Preparedness Office at the U.S. EPA was used to predict if a reactivity hazard may occur from a scenario where two materials were mixed. The computer model did not predict any unsafe reactions between the materials kept in inventory. The computer model cannot predict reactions from three or more chemicals mixing at once.

5.4 Inspection and Monitoring Program

Inspections are made to check for leaks and potential hazardous areas and are documented on the checklist provided in Appendix B of this Plan. Specific inspections are performed as follows:

- Observing the exterior of ASTs, and other equipment for signs of deterioration, leaks, corrosion, and thinning.
- Checking the inventory of discharge response equipment and restocking as needed.

AST integrity inspections should be performed at intervals and specifications according to industry standards for the type of tanks present at the facility.

5.5 Brittle Fracture Evaluations and Preventive Maintenance

There are no field-constructed tanks that will be on site.

- Leaks in containment systems, tanks and piping
- Proper function of transfer pumps and isolation valves
- Condition of material handling equipment

The above will be inspected for conditions, which could result in contamination of the work area or environment. Preventative maintenance will be performed on any areas found to be deficient. This corrective action will be accomplished and documented. This documentation and the original inspection report will be retained in accordance with the requirements of this plan.

5.6 Housekeeping Program

The following items will be performed as part of facility housekeeping:

- Equipment, packaging materials, and miscellaneous materials will be inspected for leaks, oily surfaces, etc. Deficiencies shall be promptly corrected.

- Areas where materials are unloaded, transferred, or loaded will be kept free of debris.
- Cleanup, storage, disposal, and inspection procedures will be reviewed with facility personnel as part of the training requirements of this plan.
- Housekeeping conditions will be included in the facility inspections conducted in accordance with this plan.

5.7 Security

During various activities in the development of the well-site, there will be a need for security to be present at the entry point to the well site. During these periods, visitors are to be required to sign in and authorization will be required should they arrive unexpectedly. Only authorized personnel will be allowed on the site. When security personnel are not on site to guard the entrance, Range's person in charge on-site will be responsible for managing personnel arriving on site.

5.8 External Factor Planning

Employees are trained in procedures that are in place for emergency situations Power outages, floods, and/or snowstorms may prevent operations from continuing, but should not present the circumstances for an event to occur that would have an adverse effect on public health or the environment. Power outages do not increase the likelihood for release of pollutants and do not affect spill prevention measures, or spill containment, cleanup, and removal operations.

In the event of an external emergency situation, no operations involving regulated material transfer will be initiated at the site.

5.9 Training Program

Employee training shall be conducted periodically to ensure that all responsible employees are knowledgeable of emergency and spill response procedures. All employees with responsibilities under this plan shall receive annual training in the following areas, as required:

- Knowledge of the basic hazard and risk assessment techniques.

- Know how to perform basic control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available with their unit.
- Know how to implement basic decontamination procedures.
- An understanding of the relevant standard operating procedures and termination procedures.

Employees completing the training shall be capable of demonstrating competency in the above training elements. Elements of the plan that enhance the prevention and management of environmental and safety incidents should also include and provide for training in these areas:

- Housekeeping
- Material Management Practices
- Loading and Unloading Procedures
- Site Emergency and Evacuation Procedures
- Preventative Maintenance
- Visual Inspections

This training shall be documented and included in the employee personnel files. A sufficient number of personnel shall be trained to ensure that personnel are capable of responding effectively to emergencies and to satisfactorily accomplish an evacuation of the facility if required.

6.0 COUNTERMEASURES

6.1 Countermeasures to be Undertaken

Spills of liquid material (mineral oil or aliphatic hydrocarbon) may occur from storage tanks, flow loop, equipment leaks, or spills during transfer. In the event of a spill or release, designated personnel will take the following steps:

6.1.1 Petroleum-Based Release or Hazardous Material Response Procedures: Minor Release

In the event of a minor release of oil or petroleum product to the environment, the following emergency response procedure will be conducted. A minor release is defined as a release of **less than 25 gallons** of oil product and/or less than the reportable quantity of a material to an aboveground surface, is contained to the immediate area and does not adversely impact human health and the environment, and **does not immediately threaten groundwater or surface water**. In the event of a minor release, the following procedure will be conducted if personal safety is not at risk:

- Upon discovering a spill, the employee must immediately notify the Emergency Coordinator.
- The Emergency Coordinator will determine if the spill cleanup is within the capabilities of the Range Resources personnel to contain.
- The Emergency Coordinator may initiate the following activities, if deemed appropriate:
    - Shutdown all facility operations; and
    - Invoke evacuation of the facility.
- If the determination is made that Range Resources personnel can respond to the spill safely, then booms, spill stoppers, and absorbent materials will be deployed to contain the spill and prevent the released material from migrating.
- The Emergency Coordinator will make the necessary notifications to key Range Resources personnel, local emergency agencies, and the spill response contractor, as required.

- Call a spill response contractor listed in Section 7.1, if the on-site personnel are unable to control the release or if cleanup is necessary.
- Notify the National Response Center (1-800-424-8802) to report the release if the released material is capable of reaching navigable waters. A listing of the Emergency Response telephone numbers is provided in the Section 7.1 and 7.2.
- Assess the area to ensure that human health and environmental hazards have been mitigated.
- Complete an incident report and update the PPC Plan and the SPCC Plan. Refer to Appendix A for a copy of the Incident Report Form.

6.1.2 Petroleum-Based Release or Hazardous Material Response Procedures: Major Release

A major release is defined as a release of **25 gallons or greater** of oil product and/or over the reportable quantity of a material to the environment or the release **immediately threatens groundwater or surface water.** In the event of a major release and the material cannot be controlled, contained or mitigated by facility personnel, the following procedure will be implemented:

- If imminent danger exists, immediately notify everyone at the facility. Engage appropriate evacuation procedures, as necessary.
- Upon discovering a spill, the employee must immediately notify the Emergency Coordinator.
- The Emergency Coordinator will determine if the spill cleanup is within the capabilities of the Range Resources personnel to contain.
- The Emergency Coordinator may initiate the following activities, if deemed appropriate:
    - Shutdown all operations; and
    - Invoke evacuation of the site.
- If the determination is made that Range Resources personnel can respond to the spill safely, then booms, spill stoppers, and absorbent materials will be deployed to contain the

spill and prevent the released material from entering the nearest down-gradient storm drain.

- The Emergency Coordinator will make the necessary notifications to key Range Resources personnel, local emergency agencies, and the spill response contractor, as required.
- Call a spill response contractor listed in Section 7.1, if the on-site personnel are unable to control the release or if additional cleaning is necessary.
- Notify the National Response Center (1-800-424-8802) to report the release if the released material is capable of reaching navigable waters. A listing of the Emergency Response telephone numbers is provided in Section 7.1 and 7.2.
- Contain the released product with all available equipment. All spent absorbent material will be placed in appropriate containers and properly transported off-site for disposal.
- Assess the area to ensure that human health and environmental hazards have been mitigated.
- Complete an incident report and update the PPC Plan and SPCC Plan. Refer to Appendix A for a copy of the Incident Report Form. Notify the Emergency Coordinators and/or Acting Emergency Coordinators. A listing of the Emergency Response telephone numbers is as follows.
    - **Spill response contractor** listed in Section 7.1, if the on-site personnel are unable to control the release or if cleanup is necessary.
    - **National Response Center (1-800-424-8802)** to report the release if the released material is capable of reaching navigable waters.
    - **Pennsylvania Department of Environmental Protection (PADEP) (412-442-4000) or (814) 332-6945** within 30 minutes of a major release.
    - **Pennsylvania State Police (911)** within 30 minutes of a major release.

6.2 Countermeasure to be Undertaken by Contractors

A release that cannot be contained, controlled, and/or cleaned up by on-site personnel will require assistance from an emergency contractor listed in Section 7.1. The emergency contractor will take all necessary measures to contain, control, and/or clean up the release.

6.3 Internal and External Communications and Alarm Systems

During a spill or release, cellular telephones, 2-way radios, voice, and/or hand signals are utilized to provide immediate instruction to facility personnel. Telephones are utilized to communicate with emergency contractors and emergency response agencies in the event of a spill or release.

6.4 Evacuation Plan for Facility Personnel

In the event of a spill or release beyond a minor incident, all visitors and personnel not essential to the control and cleanup operations will evacuate the area. These individuals will exit the facility through the nearest available exit and proceed to the assembly point identified by the Emergency Coordinator (if possible, an area upwind and uphill from the incident). Employees can exit the facility by means of one (1) access road and travel in either direction along public roads to a place of safety. Signals used to begin evacuation will be voice or radio. At the assembly point, the Emergency Coordinator or their designee will be responsible for a head count to ensure that all personnel have been accounted for.

6.5 Emergency Equipment Available for Response

Emergency equipment is maintained in proper working order, clearly labeled, and strategically stored strategically. Emergency equipment includes, portable fire extinguishers (periodically tested), Spill control equipment, and first aid supplies. The spill control equipment is maintained in spill kits containing the following materials.

- 55 Gallon Drum
- Personal Protective Equipment- Nitrile gloves, Poly Tyvek, Overboots
- Oil absorbent pads, 4" oil absorbent boom, and oil absorbent granular floor dry.

If additional equipment is needed, an Emergency Response Contractor listed in Section 7.1 will be contacted to assist in containment and cleanup efforts.

After an emergency, all the equipment used will be decontaminated, cleaned, and inspected for proper working order before normal operations resume.

6.5 Emergency Equipment Maintenance and Decontamination

All equipment used for emergency procedures shall be kept in satisfactory condition and maintained and or replaced as needed. All contaminated tools or equipment shall be properly cleaned or disposed of. Emergency equipment shall be tested for proper working order and be replaced as necessary.

6.6 Disposal

Waste oils, fuels, and contaminated rainwater collected at the facility as a result of a spill that cannot be recovered will be properly disposed of at an appropriately permitted facility. Disposal Sites in which produced water disposed of are as follows:

Liquid Assets Disposal (LAD)

New Castle Environmental

Franklin, PA Brine Treatment Plant

Punnelton Liquids

Eureka Resources

6.7 Regulatory Agency Reporting

An incident report form in Appendix A, will supply required information for federal, state, and local authorities as required.

6.7.1 Federal Reporting

The facility will notify the appropriate regulatory agencies and submit the current Spill, Prevention, Control, and Countermeasures (SPCC) Plan to the USEPA Region III Regional Administrator and other appropriate regulatory agencies if either of the following occurs at the subject site:

- The site discharges more than 1,000 gallons of oil into or upon the navigable waters of the United States or adjoining shorelines.
- The site discharges oil over 42 gallons in two spill events within any 12-month period.

The following information will be provided within 60 days of a reportable spill:

- Name of the facility,
- Name(s) of the facility owner/operator,
- Location of the facility,
- Date and year of initial facility operation,
- Maximum oil storage or handling capacity and daily throughput,
- Description of facility, including maps and diagrams,
- Complete copy of the PPC and/or SPCC and amendments,
- Cause of the spill, including failure analysis, and
- Corrective actions and/or countermeasures taken.

6.7.2 State Reporting

An incident report form that will supply required information for federal, state, and local authorities is included in Appendix A.

Within fifteen (15) days of the incident, the Facility will submit a written report to the PA DEP if either of the following occurs at the subject site:

- The facility discharges any quantity of oil or regulated substances that immediately threaten groundwater or surface water.
- The facility discharges at least 25 gallons of oil or a regulated substance onto an aboveground surface.
- A release of a hazardous substance to an aboveground surface that exceeds its reportable quantity under the Comprehensive Environmental Response, Compensation, and Liability (CERCLA) Act of 1980 and 40 CFR Part 302 (relating to designation, reportable quantities, and notification.

The following information will be provided within 15 days of a reportable spill:

- Name, address, and telephone number of the installation,
- Date, time, and location of the incident,
- A brief description of the circumstances causing the incident,
- Description and estimated quantity by weight or volume of materials or wastes involved,
- An assessment of any contamination of land, water, or air, which has occurred due to the incident,
- Estimated quantity and disposition of recovered materials or wastes that resulted from the incident, and
- A description of what actions the installation intends to take to prevent a similar occurrence in the future.

6.8 Fire Suppression System

Fire extinguishers are inspected periodically. The locations of these extinguishers are placed in strategic locations throughout the site. All fire extinguishers on site are complaint with American National Standards Institute (ANSI) criteria for responding to ABC class fires. These systems will be used only for small and immediately confined (first responder) fires. In all other incidents, the local Fire Department listed in Section 7.1 will be contacted to combat the fire.

6.9 Medical and Fire Emergency Plans

In the event of a medical emergency, the Emergency Coordinator must request outside emergency medical services and transportation to local hospital emergency room. Refer to Section 7.1 for emergency contact phone numbers. Contaminated individuals will be removed from the site and gross contamination will be removed by taking or cutting off their clothing.

If there is imminent danger, the Emergency Coordinator will evacuate personnel. Upon evacuation of the site, all employees, except those with emergency responsibilities, are to go to a location designated by the Emergency Coordinator which is upwind of the incident location and remain there until a head count can be taken. Under no circumstances are employees to go home until given approval to do so by the Emergency Coordinator or a designated representative.

7.0 EMERGENCY SPILL CONTROL NETWORK

7.1 Arrangements with Local Emergency Response Agencies and Hospitals

In the event of an accident, spill, or release requiring outside assistance, the following emergency response contractors, agencies, and hospitals are available to assist the facility.

Medical Agencies	
Washington Hospital	(724) 225-7000
Ohio Valley Hospital	(740) 283-7000
Canonsburg Hospital	(724) 745-6100
Washington Hospital – Burgettstown Medical Plaza	(724) 947-6261
Southwest Regional Medical Center	(724) 627-3101
St. Clair Hospital	(412) 561-4900

Ambulance Service	
South Franklin Township Ambulance and Chair	(724) 225-8050
Fort Cherry Ambulance	(724) 926-7200

Emergency Contacts	
All Emergencies	**911**
Waynesburg Fire Department	(724) 627-5426
Chartiers VFD	(724) 745-9477
Fire: Hickory Fire Department	(724) 356-7801
Police: Hickory Police	(724) 356-7917

Emergency Response Contractors	
Spills: Weavertown Environmental Group	(800) 746-4850
Alex E. Paris	(724) 947-2235
Pipelines: Alex E. Paris	(724) 947-2235
TEAM Industrial Services Inc.	(800) 662-8326

7.2 Notification Lists

The Emergency Coordinator will notify the following company officials, as appropriate:

Range Resources – Company Officials

Name	Title	Telephone Number
Mark Hansen	Vice President - EHS	(817) 869-4217
Ray Walker	Vice President – Shale Appalachia	(724) 743-6700

The following list of government agencies and emergency organizations will be notified, as required, depending on the emergency and required response:

Emergency Management Contacts

Reporting Agency	Telephone Number
Weavertown Environmental 24-Hour Emergency Response	(800) 746-4850
Alex E. Paris 24-Hour Emergency Response	(724) 947-2235
County of Emergency Management Agency Washington County [Monday – Friday 8:30 a.m. – 4:40 p.m.] *Nights and weekends all calls are forwarded to 911	(724) 228-6911
PA DEP Regional Office	(412) 442-4000
PA Emergency Management Agency	(717) 783-8150
PA DEP Emergency Hotline	(800) 541-2050

National Response Center (Only if the spill leaves the property and is likely to enter navigable waters)	(800) 424-8802
PA Fish Commission Waterways Patrolman	(814) 445-8974

A written follow-up requirement is required within 15 days after reporting the spill. This written report should be mailed to the agencies with the exception of the National Response Center, which does not require a written follow-up. An incident report form that will supply all of the required information for federal, state, and local authorities and mailing addresses is included in Appendix A.

7.2.1 Notification Protocol

The following narrative should be followed for making initial verbal contact with any Emergency Agency:

"This is ***[state your full name]*** with Range Resources – Location Coordinates. We have an emergency. Our emergency is a ***[specify type of emergency.]***"

FOR PRODUCT SPILL:

It is estimated that ***[state quantity]*** of ***[state product]*** has been released.

The spill is ***[contained/not contained]***.

The release occurred at ***[state time – a.m./p.m.]*** and lasted for approximately ***[state period of time]***.

The medium or media into which the release occurred is ***[state air, water, ground etc.]***.

The number of people known to be involved in the emergency is ***[state number]***.

There are ***[state number]*** of injuries known at this time.

WAIT FOR OTHER PARTY TO HANG UP FIRST!

7.3 Downstream Notification

Not applicable at this facility.

8.0 STORMWATER MANAGEMENT ACTIVITIES

No stormwater drains are located at the sites identified in the Drilling Permit Application. Intermittent or perennial waterways within the anticipated area of influence, in the event of a release at the site, will be identified and mitigated

The procedures for site housekeeping and inspections programs, are considered to be reasonable and appropriate, and are consistent with Best Management Practices for this type of site in regards to stormwater management.

9.0 EROSION AND SEDIMENTATION PREVENTION

During construction or land disturbance the control of sediment migration and erosion is addressed by installing silt fences where appropriate and promptly covering disturbed land with topsoil and seed.

The E&S Control Report will contain the following:

General Information

Project Description

Erosion & Sedimentation Control

Staging of Activities

Maintenance Program

Seeding, Mulching & Soil Conditioning

Hydrology

Soil Maps

Soil Information

Location Map

Exhibits

- Access Road Construction
- Construction Entrance
- Roadway Drainage
- Culvert Installation
- Broad Based Dips
- Filter Fabric Construction
- Straw Bale Filters

Ditch Details

Maps & Plans

Access Road Plan

Well Site Plan

List of Symbols

10.0 ADDITIONAL REQUIREMENTS FOR EPCRA SECTION 313 FACILITIES

Not applicable. The site does not meet the criteria for EPCRA Section 313 reporting.

11.0 SIGNATORY REQUIREMENTS

The Preparedness, Prevention and Contingency Plan certification signature is included in Section 1 and signed by a signature authority as required.

12.0 PLAN REVISION AND RECORD RETENTION

The following documents related to this Preparedness, Prevention and Contingency Plan shall be kept on file for a period no less than three years:

- Inspections Records
- Corrective Action Documentation
- Training Records
- Annual Inspection Reports
- Spill Reports

This plan shall be amended whenever:

- There is a change in site construction, operation, or maintenance that may affect the discharge of significant quantities of pollutants to water, air, or land of the state.
- If a site inspection indicates the need for a plan amendment.
- If the project is found to be in violation of any of the discharge permit conditions.

A record of amendments and description of the amendments shall be signed by the Signature Authority and maintained in accordance with this section. This is included in Section 2.

Appendix A

Appendix B

Appendix C

Appendix D

Emergency Spill Plan

The purpose of this portion of the PREPAREDNESS PREVENTION AND CONTINGENCY PLAN (PPC) is ensure that adequate engineering controls are assessed and utilized to minimize the potential of a spill being created due to a failure. This protocol allows for the standard practice of defining a quality control process or process safety management which assesses the process flow as a means to maintain continuous improvement during the fracing process. The Management of Change procedure will be implemented to ensure that like parts are utilized and an approval of the change has been authorized by a competent Range Resources representative. In order to achieve this, the processes will be separated into various sections that have the potential to have a spill. For each section, the process control, engineering review of equipment and means to ensure that all contractors and Range Resources' personnel are ware of the processes involved and are trained accordingly. The

The quality process will highlight the following areas:

TRAINING

Contractor: Range Resources will provide documented training on the PPC to ensure that all contractors are aware of its function and issue them a traceable copy (controlled document). Each copy of the PPC will be assigned a number referencing that contractor's name. A log of the issuance will be maintained by the Range Safety Department in Canonsburg, PA. Emphasis will be placed on the contractor to ensure that their copy will be present within their employees' reach when conducting business for Range. Copies of the issued PPC can be reproduced and distributed to their employees.

It is the responsibility of the contractor to provide training to their employees that will be in a position that requires them to act in the event of a release (leak or spill). These employees will need to understand the function of the PPC along with the reporting structure that must be followed. Range has the right to ensure that these employees are following the protocol established to ensure that failures do not occur; failure to follow these work requirements could be subject to the ability to further conduct business with Range.

Contractor Employees: In an effort to eliminate the potential for releases, it is the responsibility of the contractor to provide adequate training to its employees that provides them

with a level of competency to perform their tasks proficiently. Each employee should be able to understand and recognize hazards within their areas of operation that could pose harm to personnel or the environment. Employees should be able to recognize that specified equipment is being installed and has the right to ensure that any substitutions of equipment or materials follow an approved Management of Change process.

Any new employees hired by the contractor must be trained on the PPC process. The contractor will be subject to audit by Range at any time to ensure that complete records are being maintained. It is the responsibility of the contractor to ensure that this procedure is being followed.

WATER TRANSFER

The transfer of fluids maintains the largest risk pertaining to the potential

From Water Storage Impoundment to another Impoundment

From Water Storage Impoundment to Well Pad Storage Tanks

Well Pad Storage Tanks to Blender

From Wellhead to Flowback Tanks

From Flowback Tanks to Water Storage Impoundment

From Flowback Tanks to Production Storage Tanks

PROCESS CONTROL

Process control is a means of identifying the type of work being performed, materials to be required and a plan to install or rig up such equipment. The process will require that the flow material be engineered to meet the specifications set forth by Range for the task at hand.

Range expects for its contractors to be able to professionally engineer a process that identifies materials required that will perform the needs taking into account terrain, location size, restrictions, and weather conditions as well to eliminate failure. Any additional fail-safe measures should always be recommended as new technologies are developed to minimize risk.

MANAGEMENT OF CHANGE

In formalizing a substitution process for equipment or materials, Range will utilize a process taken from Process Safety Management (29 CFR 1910.199). The use of Management of Change requires the need to ensure that the items being replaced have been selected based on their ability not to compromise the specification of the original equipment or materials. Therefore, accurate specifications of the original equipment must be maintained. Once a replacement product has been selected, the Management of Change must be approved by a Range representative. In some cases, supportive documentation may be requested.

Management of Change not only addresses maintenance but it also addresses what should be done should a change in the process itself be required. An approval of the change would still be documented and required by a Range representative. All personnel involved in the process will need to be trained in the understanding of the change and what modifications will need to be made.

ENGINEERING STUDY OF EQUIPMENT

The type of equipment being used to conduct the process will need to be selected based on the performance required. The specifications will be the responsibility of the contractor. The contractor will mark all transfer equipment with the pressure ratings, classification and owner's name on each section. The transfer equipment previously described are the sections of transfer piping, fittings or fluid transfer hoses. All gasket materials uses to make connections must be inspected prior to each use in order to assure integrity. Any gaskets not deemed to be suitable will be replaced immediately.

Any connections that require mechanical means to secure them should ensure that the instruments are functional. Any plumbing that can become loose due to vibration must use locking mechanisms. The type of the mechanisms utilized should be engineered to maintain their integrity throughout the project.

WORK PRACTICES

The tasks being conducted by all personnel in the operation are responsible to ensure that breaches are immediately address once discovered. During the Job Safety Analysis or Hazard Assessment Analysis, potential non-conformities will be identified and a means to

monitor will be discussed. Personnel assigned to other duties may be asked to maintain vigilance on any equipment in their view of site or designated area. All personnel conducting tasks on the worksite must be competent in the performance of their duties. Certain job tasks require certification. Any employee conducting these functions must have current valid certifications for specified equipment type being operated where applicable.

Any SSEs (Short Service Employees) that are working in the area will be assigned a mentor who will conduct on the job training. The mentor must ensure that the SSE comprehends the task being assigned and can carry it out proficiently. The SSE should not be allowed to operate any equipment unless they have been authorized to by the mentor or a qualified person.

STOP WORK authority is a practice that allows any employee with any company on the work site to stop the work being performed should there be imminent danger associated with any task being performed. This practice gives authority to all individuals to monitor the worksite and make decisions that can prevent the damage to the environment, equipment or injury to any employee. The incentive for this practice is to encourage personnel to look for situations that can cause a disruption to the operation without retribution.

REPORTING STRUCTURE

Non-Conformance

Corrective Measures

DISPOSAL

The disposal of any liquid residual waste will be in accordance to those sites mentioned in Section 6.6 under Countermeasures of this document. These facilities have already been identified and authorized by Range Resources Regulatory Department and should not be deviated from.

Solid waste will be diagnosed to determine if any hazards exist and will be disposed of according to local regulations. Identified Emergency Management contactors will be responsible for following regulations to ensure that Range complies accordingly. Any discrepancies or

clarifications must received approval from Range's Regulatory Department prior to movement of the solid waste.

Oil Removal Checklist

1) After review of the oil spill notification, and notification and coordination with the State, and prior to the preliminary assessment and initiation of a removal, determine your funding needs, and obtain an FPN from CANAPS.

2) The OSC needs to identify all of the subordinate costs which must be captured under the FPN Project Ceiling.

DETERMINE THE FPN TOTAL PROJECT CEILING
Use the following categories to determine the FPN Project Ceiling

EPA DIRECT COSTS **Ceiling ($)**

Extramural Costs
Cleanup Contractor (ERRS/ERS)
BOA Contractors
START/RST
ERT - SERAS
Purchase Card Charges
Notice to Proceed

Intramural Costs
EPA Salary
EPA Travel

Subtotal of all EPA Direct Costs _____ (1)

EPA INDIRECT COSTS
Region's Indirect Cost Rate = _____ %
Subtotal of EPA Direct Costs (line 1) x _____ % _____ (2)

[Regional Indirect Cost Rate will be available on EPAOSC.Net website]

NOTE: EPA Direct Costs and EPA Indirect Costs will be reimbursed by the OSLTF. They are also known as reimbursable cost.

Other Costs
USCG-Strike Team
USCG-COIL Lab
Other Government Agencies
Pollution Removal Funding Authorization (PRFAs)
Subtotal of Other Costs _____ (3)
NOTE: Other Costs are reimbursed directly from the OSLTF by NPFC. No funds for these other agencies are processed through EPA. These other costs are sometimes referred to as "non-reimbursable" costs, since EPA does not get reimbursed for these costs.

PROJECT CEILING (Sum of (1)+(2)+(3), above)

3) Follow the regional process in place for OSCs to access CANAPS.

4) Follow the regional process to insure that sufficient Multi-Incident IAG Ceiling (extramural and travel funds) exist to cover request.

5) The OSC should receive an email from Cincinnati Financial Management which will provide the incident specific EPA account number. The current contact at Cincinnati Finance is Carole Kirby, 513-487-2038 (as of July 2010).

6) Follow Regional Contracting Procedures to access RST/START and ERRS/ERS/BOA and insure the EPA Account Number is loaded into IFMS for use in contracting, PeoplePlus and GovTrip. All Daily Project Costs need to be tracked.

7) Ensure prompt (same day) notification of the spill to State and Federal natural resource trustees.

8) Issue a Notice of Federal Interest (NFI) (aka Field Notice of Federal Interest (FNFI)) if a responsible party (RP) is known.

9) If needed, obtain access agreements, issue a removal order or a Notice of Federal Assumption. It is recommended that the OSC maintain a Site Logbook

10) Issue a POLREP on the day that the FPN is received; and periodically thereafter based on site activity. The initial POLREP must document the date the FPN was issued and the FPN ceiling. POLREP #1 must also document that there is an actual discharge or a substantial threat of a discharge, the name of the surface water that is impacted and the flow path to the surface water. Also list the source of the oil discharge (the name of the individual or company who is the responsible party) and their address. Email all POLREPs to the NPFC mailbox ARL-PF-NPFCEPAPOLREPS@uscg.mil.

11) Soon after the initiation of the removal, contact the NPFC Case Officer. Request a "source designation" by NPFC, if there is a potential for third party claims for damages from the spill. NPFC may also request verbal/phone updates on removal progress or issues. They will be particularly interested in RP search information or RP compliance with Administrative Orders. NPFC may send a Case Officer to the scene. The Case Officer will also need to be informed of third party claims which have been submitted and the amount of these claims. NPFC cost recovery efforts will also include the amount of any claims paid by the Fund.

12) When requesting a FPN ceiling increase, contact the Case Officer and use CANAPS, where applicable. Coordinate with regional management to insure the region has sufficient ceiling under the Multi-Agency Inter Agency Agreement.

13) If applicable, refer the facility for SPCC/FRP Inspection and preparation of a Clean Water Act Section 311(b)(3) Oil Spill Penalty Case.

14) Completion/Close Out of the Removal. Issue Final POLREP, last day on site is considered the completion date by NPFC. Cost documentation packages will be requested by NPFC when the RP requests supporting documentation from cost recovery efforts. At the close of the removal, when the OSC is confident that all costs have been billed or invoiced, deobligate excess funds. Two types of deobligations may be necessary. First, deobligate any excess funds in a ERRS/ERS/BOA delivery order (e.g., deobligate the funds through a procurement request and send a memo to the Contracting Officer requesting a decrease in the delivery order ceiling). Next, send a request to the NPFC case officer and CFMC to reduce the FPN project ceiling to the total final cost of the removal (i.e., deobligate excess funds from the FPN ceiling). As a cautionary note, "trailing costs" (cost which have not yet been billed for reimbursement) should be evaluated with the Case Officer and regional management.

Add links or references to regional procedures.

MIXED SUBSTANCE SPILLS

EPA Position

1. During a classic emergency response, EPA must be able to make swift, field determinations of whether a discharging material appears to be oil. These field determinations will take into account, any readily available information from the RP or other informed source (State or local agencies). If the source of the discharge is unknown or the facility is abandoned, EPA's initial decision of whether the material is oil will be based upon the physical behavior of the material and any observed adverse environmental effects. If EPA cannot immediately determine that it is NOT an oil spill, EPA will operate under the premise that it IS an oil spill, and the Oil Spill Liability Trust Fund (OSLTF) will be used.

2. When responding to a spill presumed to be oil, until determined otherwise, those cost will be considered as a part of the preliminary assessment and covered by the OSLTF. The funding source used for the initial response should reflect the authority under which we initiated the response. That is, if we respond under OPA to the report of a material presumed to be oil, we will use OSLTF for the initial response costs. If, during a response, EPA becomes aware that there are Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) hazardous substances in the material which meet the eligibility criteria for a response under CERCLA, EPA will change our response authority and source of funding to CERCLA. This change in authority and funding will be initiated when it is confirmed that the presence of CERCLA hazardous substances meet CERCLA response eligibility requirements (i.e., 40 CFR 300.415(b)(2)) and EPA becomes aware of that eligibility. Retroactive determinations that we should have responded under CERCLA authority and funding rather than OPA authority and funding will not be made.

3. For all other Removals the OSC will conduct a preliminary assessment which evaluates facility historical information and/or analytical data to determine if the material qualifies as oil under OPA. The evaluation process noted in #4 (below) will be used to make the determination between oil and hazardous substance(s).

4. Oil responses with a minor CERCLA hazardous substance component should be OSLTF-funded. EPA will base the determination of a "minor CERCLA hazardous substance component" upon the primary threat posed by the material. EPA, in general, agrees with and supports NPFC's position on what constitutes an OPA oil in the description of mixed substance spills in the NPFC User Reference Guide 2000. That is, under OPA, oil includes 1) petroleum with naturally occurring CERCLA-listed hazardous substances, 2) petroleum to which additives have been added during the refining process and, 3) petroleum provided that hazardous substances have not been added during its use nor increased by its use. However, if an oil contains minor amounts of a CERCLA hazardous substance, and the levels of that CERCLA hazardous substance, do not independently meet the eligibility factors for determining the appropriateness of removal action under CERCLA listed in the NCP (40 CFR 300.415(b)(2)), the oil will be considered oil under OPA, and the response will be funded using the OSLTF.

5. Oil responses, that generate wastes which require disposal as a Resource Conservation and

Recovery Act (RCRA) regulated hazardous waste, must be OSLTF- funded.

6. EPA agrees with and will support NPFC's position on mixed spills. "Mixed spills. If an incident includes a distinct discharge of an OPA oil and a distinct discharge of a CERCLA hazardous substance, the clean up of the discharge of oil may be funded from the OSLTF. The clean up of CERCLA hazardous substances must be funded from CERCLA's Superfund..."